REMARKS

This Submission under 37 C.F.R. 1.114 accompanies Applicants' Request for Continued Examination and is in supplemental response to the final Office Action mailed June 12, 2006 and is in response to the Advisory Action mailed August 14, 2006. By this response, claims 32 and 40 are amended. No new matter has been added.

In view of the following discussion, the Applicant submits that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, the Applicant believes that all of these claims are now in allowable form.

It is to be understood that the Applicant, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to the Applicants' subject matter recited in the pending claims. Further, the Applicant is not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

Statement of Substance of Interview

An interview concerning the present Application was held on September 1, 2006. The interview included Examiner Son P. Huynh from the USPTO and Jasper Kwoh, representative of the Applicant.

The Applicant's representative wishes to thank the Examiner for the courtesies extended during the interview. During the telephonic interview, no exhibitions were shown, and no demonstration was conducted. Claims 32 and 40 were discussed, but no references were discussed. The substance of the interview was regarding how the Examiner was interpreting the term "predicting future bandwidth availability" in the independent claims. The Examiner explained that "predicting" is equivalent to determining and allocating because the future could be less than one nanosecond. Thus, reading the term broadly, predicting is equivalent to determining. The Examiner emphasised during the telephone interview that he reconsiders predicting to be shown and is taught in the cited references.

No agreement was reached regarding the claims.

REJECTION OF CLAIMS UNDER 35 U.S.C. §103(a)

Claims 32-44

The Examiner has rejected claims 32-44 under 35 U.S.C. §103(a) as being unpatentable over Mao et al. (U.S. 6,886,178, hereinafter "Mao") in view of Wu et al. (U.S. 6,594,271, hereinafter "Wu"). Applicants respectfully traverse the rejection.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (C.C.P.A. 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F2d. 1382, 1385, 165 USPQ 494 496 (C.C.P.A. 1970), M.P.E.P. 2143.03. Moreover, the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992); *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 USPQ 416, 420 (Fed. Cir. 1986) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988).

Mao and Wu, singly or in combination, fail to teach or suggest Applicants' invention as a whole.

Applicants' independent claims 32 and 40 recite, respectively:

> 32. In an information distribution system comprising server equipment for providing both content and non-content data to subscriber equipment, said server equipment comprising:
>
> a multiplex switch for multiplexing a plurality of formatted content data from server modules to produce an output stream that is adapted for transport via a communication channel, wherein said multiplexing of said

formatted content data is statistically performed; said multiplex switch comprises a converter module for formatting non-content data and a switching module for selectively multiplexing formatted non-content data into said output stream, wherein said multiplexing of formatted non-content data is on a future bandwidth availability basis that is predicted based on said multiplexing of said formatted content streams; and

a transport processor coupled to the multiplex switch for receiving the output stream from the multiplex switch and for transmitting to the multiplex switch reverse data channel information received via a reverse data channel. (Emphasis added).

40. A method of providing content and non-content data to subscriber comprising the steps of:

statistically multiplexing a plurality of formatted content streams to produce an output stream that is adapted for transport via a communication channel;

formatting non-content data to fit the output stream;

predicting future bandwidth availability based on the statistical multiplexing of the formatted content streams;

selectively multiplexing formatted non-content data into said output stream on a future bandwidth availability basis; and

receiving reverse data channel information. (Emphasis added).

The present invention discloses that the multiplex switch provides an output stream as well as receives reverse data channel information via an Ethernet link. (See Specification: page 7, lines 3-15.)

Mao discloses a digital TV system with synchronized World Wide Web content. Specifically, Mao teaches Internet HTML Web page data is formatted to fit within a standard MPEG-2 data packet structure, and multiplexed along with other MPEG-2 digital video signals for transport within a multiple channel digital video system. The headend server broadcasts a rotating carousel comprising an ensemble of Web pages in HTML format containing both broadcast Web pages and simulcast Web pages and a control map permitting the viewer to navigate among the HTML Web pages. The control map containing the locations of the HTML Web pages in the rotating carousel that correspond to broadcast Web pages and the locations of the HTML Web pages that correspond to broadcast Web pages. The control map is updated and rebroadcast for each broadcast video program, thereby synchronizing the simulcast Web pages to the digital video programs.

Mao does not teach or suggest at least the feature of a transport processor coupled to the multiplex switch for receiving an output stream and transmitting to the multiplex switch reverse data channel information received via a reverse data channel.

Wu fails to bridge the substantial gap between Mao and Applicants' invention. Wu teaches a method and apparatus for providing an opportunistic data capability for an existing statistical multiplexing encoder platform, such as a multi-channel video data encoder. An Opportunistic Data Processor (ODP) is provided as a plug-in card or an external device that can be interfaced with an existing multi-channel encoder. The ODP communicates with a Quantization Level Processor (QLP) and Packet Multiplexer (PM) in the multi-channel encoder as if it was just another channel encoder. The ODP implements a special rate control scheme by encoding data and sending it to the PM only when a global Quantization Level (QL) indicates that spare bandwidth is available. Spare bandwidth is assumed to be available when the global QL is less than a threshold value. Moreover, the OPD sends a bandwidth need parameter to the QLP, as do the other channel encoders. However, the ODP's need parameter is scaled by a function of the global QL to attenuate its actual bandwidth need as the global QL increases to provide smooth variations in the ODP's encoded data rate.

Wu also does not teach or suggest at least the feature of a transport processor coupled to the multiplex switch for receiving an output stream and transmitting to the multiplex switch reverse data channel information received via a reverse data channel.

Thus, Mao and Wu, singly or in combination, fail to teach or suggest the invention as a whole. As such, Applicants submit that independent claims 32 and 40 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Furthermore, claims 33-39 and 41-44 respectively depend from independent claims 32 and 40 and recite additional limitations thereof. As such, and at least for the same reasons as discussed above, Applicants submit that these dependent claims are also not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully request that the Examiner's rejections be withdrawn.

CONCLUSION

Thus, Applicants submit that none of the claims presently in the application, are obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall or Jasper Kwoh at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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